

We Claim:

1. [AMENDED] A crossover component for crossing a conductor line over another
conductor line printed on an integrated circuit, comprising:
a lowermost first dielectric layer;
a ground plane layer disposed above said first dielectric layer;
a second dielectric layer disposed above said ground plane layer; and
at least one conductor line disposed above said second dielectric layer, said
conductor line traversing said second dielectric layer to provide an electrical path from one
end of the crossover component to an opposed end thereof,
wherein said crossover component is a discrete component that may be mounted on
the surface of said integrated circuit and wherein said first and second dielectric layers and
said ground plane layer electrically and capacitively isolate, respectively, said at least one
conductor line from the conductor line printed on the integrated circuit, such that current
flowing through the crossover component via said at least one conductor line encounters no
substantial interference from current flowing through the conductor line printed on the
integrated circuit.

2. [AMENDED] The crossover component of claim 1, further comprising an input
termination contact in electrical communication with an input end of said at least one
conductor line and an output termination contact in electrical communication with an output
end of said conductor line, wherein said ground plane layer is electrically isolated from said
input and output termination contacts.

3. [AMENDED] The crossover component of claim 1, further comprising a second
conductor line disposed above said second dielectric layer spaced laterally from said first

3 conductor line, said second conductor line traversing said second dielectric layer to provide
4 a second electrical path from the one end of the crossover component to the opposed end
5 thereof.

1 4. [AMENDED] The crossover component of claim 3, further comprising a first input
2 termination contact in electrical communication with an input end of said first conductor
3 line, a first output termination contact in electrical communication with an output end of
4 said first conductor line, a second input termination contact in electrical communication
5 with an input end of said second conductor line, and a second output termination contact in
6 electrical communication with an output end of said second conductor line, wherein said
7 ground plane layer is electrically isolated from said first and second termination contacts.

1 5. [CANCELLED] A crossover component comprising:
2 a functional surface mount component including a first conductor line;
3 a ground plane layer disposed on one of opposite major surfaces of said functional
4 surface mount component;
5 a dielectric layer disposed adjacent said ground plane layer; and
6 at least one second conductor line disposed adjacent said dielectric layer, said
7 second conductor at least one line traversing said dielectric layer to provide an electrical
8 path from one end of the crossover component to an opposed end thereof,
9 wherein said dielectric layer and said ground plane layer electrically and
10 capacitively isolate, respectively, said first and second conductor lines from one another,
11 such that current flowing through the crossover component via said second conductor lines
12 encounters no substantial interference from current flowing through said first conductor
13 line.

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1 6. [AMENDED] The surface mount crossover component of claim 7, further
2 comprising an input termination contact in electrical communication with an input end of
3 said second conductor line and an output termination contact in electrical communication
4 with an output end of said second conductor line, wherein said ground plane layer is
5 electrically isolated from said termination contacts.

1 7. [AMENDED] A crossover component comprising:
2 a functional surface mount component including a first conductor line;
3 a ground plane layer disposed on one of opposite major surfaces of said functional
4 surface mount component;
5 a dielectric layer disposed adjacent said ground plane layer; and
6 at least one second conductor line disposed adjacent said dielectric layer, said
7 second conductor at least one line traversing said dielectric layer to provide an electrical
8 path from one end of the crossover component to an opposed end thereof,
9 wherein said dielectric layer and said ground plane layer electrically and
10 capacitively isolate, respectively, said first and second conductor lines from one another,
11 such that current flowing through the crossover component via said second conductor lines
12 encounters no substantial interference from current flowing through said first conductor
13 line, further comprising a third conductor line disposed adjacent said dielectric layer spaced
14 laterally from said second conductor line, said third conductor line traversing said dielectric
15 layer to provide a second electrical path from the one end of the crossover component to the
16 opposed end thereof.

1 8. [AMENDED] The crossover component of claim 7, further comprising a first input
2 termination contact in electrical communication with an input end of said second conductor
3 line, a first output termination contact in electrical communication with an output end of

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4 said second conductor line, a second input termination contact in electrical communication
5 with an input end of said third conductor line, and a second output termination contact in
6 electrical communication with an output end of said third conductor line, wherein said
7 ground plane layer is electrically isolated from said termination contacts.

1 9. [AMENDED] A surface mount crossover component comprising first and second
2 conductor lines electrically isolated from one another by an interposed dielectric layer and
3 capacitively isolated from one another by an interposed ground plane layer, wherein current
4 flowing through the crossover component via one of said first and second conductor lines
5 encounters no substantial S interference from current flowing through the other one of said
6 first and second conductor lines.

1 10. The surface mount crossover component of claim 9, wherein said first conductor line
2 extends in a first direction within a first plane, said second conductor line extends in a
3 second direction within a second plane, and said first direction crosses said second
4 direction.

1 11. The surface mount crossover component of claim 10, wherein said first direction
2 crosses said second direction at an angle of about 90°.

1 12. [CANCELLED] A surface mount crossover component, comprising:
2 a bottom ground plane layer;
3 a first dielectric layer disposed above said bottom ground plane layer;
4 at least one first conductor line disposed above said first dielectric layer;
5 a second dielectric layer disposed above said at least one first conductor line;
6 an internal ground plane layer disposed above said second dielectric layer;

7 a third dielectric layer disposed above said internal ground plane layer;
8 at least one second conductor line disposed above said third dielectric layer;
9 a fourth dielectric layer disposed above said at least one second conductor line;
10 and a top ground plane layer disposed above said fourth dielectric layer;
11 wherein a current flowing through said surface mount crossover component via one
12 of said first and second conductor lines encounters no substantial interference from current
13 flowing through the other one of said first and second conductor lines

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1 13. [AMENDED] The surface mount crossover component of claim 15, wherein said
2 first conductor line extends along a first direction and said second conductor line extends
3 along a second direction crossing said first direction.

1 14. [CANCELLED] The surface mount crossover component of claim 12, further
2 comprising a first input termination contact in electrical communication with an input end
3 of said first conductor line, a first output termination contact in electrical communication
4 with an output end of said first conductor line, a second input termination contact in
5 electrical communication with an input end of said second conductor line, and a second
6 output termination contact in electrical communication with an output end of said second
7 conductor line.

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1 15. [AMENDED] A crossover component, comprising:
2 a bottom ground plane layer;
3 a first dielectric layer disposed above said bottom ground plane layer;
4 at least one first conductor line disposed above said first dielectric layer;
5 a second dielectric layer disposed above said at least one first conductor line;
6 an internal ground plane layer disposed above said second dielectric layer;